

Hit List

Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: NZ 512208 A, WO 200032789 A1, AU 200015862 A, EP 1135507 A1, BR 9915881 A

Using default format because multiple data bases are involved.

L3: Entry 1 of 2

File: DWPI

Dec 19, 2003

DERWENT-ACC-NO: 2000-412335

DERWENT-WEEK: 200404

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TITLE: A new DNA sequence encoding a polypeptide with alcohol acyl transferase activity for producing and regulating aromatic and/or aliphatic ester formation in microorganisms, plant cells or plants

INVENTOR: AHARONI, A; LUECKER, J ; O'CONNELL, A P ; VAN TUNEN, A J ; VERHOEVEN, H A ; O'CONNELL, A P ; LUCKER, J

PRIORITY-DATA: 1999EP-0200739 (March 12, 1999), 1998EP-0204018 (December 2, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
NZ 512208 A	December 19, 2003		000	C12N015/53
WO 200032789 A1	June 8, 2000	E	163	C12N015/53
AU 200015862 A	June 19, 2000		000	
EP 1135507 A1	September 26, 2001	E	000	C12N015/53
BR 9915881 A	February 5, 2002		000	C12N015/53

INT-CL (IPC): A01 H 5/00; C07 K 16/40; C12 N 9/04; C12 N 9/10; C12 N 9/18; C12 N 9/88; C12 N 15/11; C12 N 15/53; C12 N 15/54; C12 N 15/55; C12 N 15/60; C12 N 15/82; C12 P 7/62; C12 Q 1/68; G01 N 33/50

Full	Title	Citation	Front	Review	Classification	Date	Reference	Seq. ID	Al. ID	Claims	EMC	Draw. D
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☐ 2. Document ID: EP 1006190 A1

L3: Entry 2 of 2

File: DWPI

Jun 7, 2000

DERWENT-ACC-NO: 2000-378264

DERWENT-WEEK: 200035

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TITLE: New polynucleotides encoding enzymes from the biosynthetic pathway for aromatic and/or aliphatic ester production in fruit used to modify plant flavors

INVENTOR: AHARONI, A; LUECKER, J ; O'CONNELL, A P ; VAN TUNEN, A J ; VERHOEVEN, H A

PRIORITY-DATA: 1998EP-0204018 (December 2, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1006190 A1	June 7, 2000	E	116	C12N015/53

INT-CL (IPC): A01 H 5/00; C07 K 16/40; C12 N 9/04; C12 N 9/10; C12 N 9/88; C12 N 15/11; C12 N 15/53; C12 N 15/54; C12 N 15/60; C12 N 15/82; C12 P 7/62; C12 Q 1/68; G01 N 33/50

Full	Title	Citation	Front	Review	Classification	Date	Reference	Source	Abstracts	Claims	MM	Draw
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Fwd Refs

Bkwd Refs

Generate OACS

Terms

Documents

L1 with fruit

2

Display Format:

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Search Results - Record(s) 1 through 10 of 15 returned.

☐ 1. Document ID: US 20040009576 A1

Using default format because multiple data bases are involved.

L1: Entry 1 of 15

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040009576
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040009576 A1

TITLE: Methods and compositions for modification of lipid biosynthesis

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Kalscheuer, Rainer	Munster	CA	DE	
Steinbuchel, Alexander	Altenberge		DE	
Voelker, Toni	Davis		US	

US-CL-CURRENT: 435/252.3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 2. Document ID: US 20030191043 A1

L1: Entry 2 of 15

File: PGPB

Oct 9, 2003

PGPUB-DOCUMENT-NUMBER: 20030191043
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030191043 A1

TITLE: Methods and formulations for enhancing the dissolution of a solid material in liquid

PUBLICATION-DATE: October 9, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Becker, Nathaniel T.	Hillsborough	CA	US	
Capeci, Scott William	North Bend	OH	US	
Concar, Edward M.	San Francisco	CA	US	
Janssen, Giselle	San Carlos	CA	US	

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Search Results - Record(s) 11 through 15 of 15 returned.

☐ 11. Document ID: JP 02035080 A

Using default format because multiple data bases are involved.

L1: Entry 11 of 15

File: JPAB

Feb 5, 1990

PUB-NO: JP402035080A

DOCUMENT-IDENTIFIER: JP 02035080 A

TITLE: NOVEL ALCOHOL ACYL TRANSFERASE AND USE THEREOF

PUBN-DATE: February 5, 1990

INVENTOR-INFORMATION:

NAME

COUNTRY

YAMAUCHI, HIROTADA

HASUO, TETSUO

HARA, MASAMICHI

YOSHIZAWA, KIYOSHI

AMACHI, TERUO

US-CL-CURRENT: 435/193; 435/910

INT-CL (IPC): C12N 9/10; C12G 3/02

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Abstract	Claims	Keywords	Draw. Data
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☐ 12. Document ID: EP 1006190 A1

L1: Entry 12 of 15

File: EPAB

Jun 7, 2000

PUB-NO: EP001006190A1

DOCUMENT-IDENTIFIER: EP 1006190 A1

TITLE: Fruit flavour related genes and use thereof

PUBN-DATE: June 7, 2000

INVENTOR-INFORMATION:

NAME

COUNTRY

VERHOEVEN, HARRIE ADRIANUS

NL

VAN, TUNEN ARJEN JOHANNES

NL

AHARONI, ASAPH

IL

LUECKER, JOOST

NL

O'CONNELL, ANN PATRICIA

NL

INT-CL (IPC): C12 N 15/53; C12 N 15/54; C12 N 15/60; C12 N 15/11; C12 N 15/82; C12 N 9/10; C12 N 9/88; C12 N 9/04; C12 P 7/62; C12 Q 1/68; C07 K 16/40; A01 H 5/00; G01 N 33/50
EUR-CL (EPC): C12N015/82; C12N009/04, C12N009/10 , C12N009/10 , C12N009/88 , C12N015/82

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	NUMC	Draw. De
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☐ 13. Document ID: NZ 512208 A, WO 200032789 A1, AU 200015862 A, EP 1135507 A1, BR 9915881 A

L1: Entry 13 of 15

File: DWPI

Dec 19, 2003

DERWENT-ACC-NO: 2000-412335

DERWENT-WEEK: 200404

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TITLE: A new DNA sequence encoding a polypeptide with alcohol acyl transferase activity for producing and regulating aromatic and/or aliphatic ester formation in microorganisms, plant cells or plants

INVENTOR: AHARONI, A; LUECKER, J ; O'CONNELL, A P ; VAN TUNEN, A J ; VERHOEVEN, H A ; O'CONNELL, A P ; LUCKER, J

PRIORITY-DATA: 1999EP-0200739 (March 12, 1999), 1998EP-0204018 (December 2, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
NZ 512208 A	December 19, 2003		000	C12N015/53
WO 200032789 A1	June 8, 2000	E	163	C12N015/53
AU 200015862 A	June 19, 2000		000	
EP 1135507 A1	September 26, 2001	E	000	C12N015/53
BR 9915881 A	February 5, 2002		000	C12N015/53

INT-CL (IPC): A01 H 5/00; C07 K 16/40; C12 N 9/04; C12 N 9/10; C12 N 9/18; C12 N 9/88; C12 N 15/11; C12 N 15/53; C12 N 15/54; C12 N 15/55; C12 N 15/60; C12 N 15/82; C12 P 7/62; C12 Q 1/68; G01 N 33/50

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	NUMC	Draw. De
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☐ 14. Document ID: EP 1006190 A1

L1: Entry 14 of 15

File: DWPI

Jun 7, 2000

DERWENT-ACC-NO: 2000-378264

DERWENT-WEEK: 200035

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: New polynucleotides encoding enzymes from the biosynthetic pathway for aromatic and/or aliphatic ester production in fruit used to modify plant flavors

INVENTOR: AHARONI, A; LUECKER, J ; O'CONNELL, A P ; VAN TUNEN, A J ; VERHOEVEN, H A

PRIORITY-DATA: 1998EP-0204018 (December 2, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1006190 A1	June 7, 2000	E	116	C12N015/53

INT-CL (IPC): [A01 H 5/00](#); [C07 K 16/40](#); [C12 N 9/04](#); [C12 N 9/10](#); [C12 N 9/88](#); [C12 N 15/11](#); [C12 N 15/53](#); [C12 N 15/54](#); [C12 N 15/60](#); [C12 N 15/82](#); [C12 P 7/62](#); [C12 Q 1/68](#); [G01 N 33/50](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawings
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☐ 15. Document ID: JP 02035080 A, JP 2833769 B2

L1: Entry 15 of 15

File: DWPI

Feb 5, 1990

DERWENT-ACC-NO: 1990-080631

DERWENT-WEEK: 199903

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TITLE: [Alcohol:acyl:transferase](#) - prepd. by culturing microbe belonging to neurospora

PRIORITY-DATA: 1988JP-0082073 (April 2, 1988), 1989JP-0057619 (March 9, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 02035080 A	February 5, 1990		014	
JP 2833769 B2	December 9, 1998		013	C12N009/10

INT-CL (IPC): [C12G 3/02](#); [C12N 9/10](#); [C12P 7/64](#); [C12R 1/64](#); [C12N 9/10](#); [C12R 1/645](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawings
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alcohol acyl transferase

Documents

15

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WEST Search History

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DATE: Friday, July 09, 2004

Hide?	Set Name	Query	Hit Count
	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>		
<input type="checkbox"/>	L7	acyl CoA: alcohol acyl transferase with strawberry	0
<input type="checkbox"/>	L6	alcohol acyl transferase and aliphatic	3
<input type="checkbox"/>	L5	alcohol acyl transferase.clm.	0
<input type="checkbox"/>	L4	L1 with mango	0
<input type="checkbox"/>	L3	L1 with fruit	2
<input type="checkbox"/>	L2	L1 with strawberry	0
<input type="checkbox"/>	L1	alcohol acyl transferase	15

END OF SEARCH HISTORY

=> s (alcohol acyl transferase or alcohol dehydrngenase) and (strawberry or fruit flavor)
L4 6 (ALCOHOL ACYL TRANSFERASE OR ALCOHOL DEHYDRNGENASE) AND (STRAWBER
RY OR FRUIT FLAVOR)

=> dup rem l4

PROCESSING COMPLETED FOR L4

L5 3 DUP REM L4 (3 DUPLICATES REMOVED)

=> d l5 1-3 ibib ab

L5 ANSWER 1 OF 3 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2002247257 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11985619
TITLE: Molecular and biochemical characteristics of a gene
encoding an **alcohol acyl-
transferase** involved in the generation of aroma
volatile esters during melon ripening.
AUTHOR: Yahyaoui Fikri E L; Wongs-Aree Chalermchai; Latche Alain;
Hackett Rachel; Grierson Don; Pech Jean-Claude
CORPORATE SOURCE: UMR990 -INP/ENSAT-INRA, Castanet-Tolosan, France.
SOURCE: European journal of biochemistry / FEBS, (2002 May) 269 (9)
2359-66.
Journal code: 0107600. ISSN: 0014-2956.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF468022
ENTRY MONTH: 200207
ENTRY DATE: Entered STN: 20020503
Last Updated on STN: 20020720
Entered Medline: 20020719

AB Two genes (CM-AAT1 and CM-AAT2) with strong sequence homology (87% identity at the protein level) putatively involved in the formation of aroma volatile esters have been isolated from Charentais melon fruit. They belong to a large and highly divergent family of multifunctional plant acyl-transferases and show at most 21% identity to the only other fruit acyl-transferase characterized so far in **strawberry**. RT-PCR studies indicated that both genes were specifically expressed in fruit at increasing rates in the early and mid phases of ripening. Expression was severely reduced in ethylene-suppressed antisense ACC oxidase (AS) fruit and in wild-type (WT) fruit treated with the ethylene antagonist 1-MCP. Cloning of the two genes in yeast revealed that the CM-AAT1 protein exhibited **alcohol acyl-
transferase** activity while no such activity could be detected for CM-AAT2 despite the strong homology between the two sequences. CM-AAT1 was capable of producing esters from a wide range of combinations of alcohols and acyl-CoAs. The higher the carbon chain of aliphatic alcohols, the higher the activity. Branched alcohols were esterified at differential rates depending on the position of the methyl group and the nature of the acyl donor. Phenyl and benzoyl alcohols were also good substrates, but activity varied with the position and size of the aromatic residue. The cis/trans configuration influenced activity either positively (2-hexenol) or negatively (3-hexenol). Because ripening melons evolve the whole range of esters generated by the recombinant CM-AAT1 protein, we conclude that CM-AAT1 plays a major role in aroma volatiles formation in the melon.

L5 ANSWER 2 OF 3 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
ACCESSION NUMBER: 2000-10767 BIOTECHDS
TITLE: New polynucleotides encoding enzymes from the biosynthetic
pathway for aromatic and/or aliphatic ester production in
fruit used to modify plant flavors;
vector-mediated alcohol-acyltransferase,
amino-transferase, thiolase, pyruvate-decarboxylase and

alcohol-dehydrogenase in transgenic plant
AUTHOR: Verhoeven H A; van Tunen A J; Aharoni A; Luecker J; O'Connell
A P
PATENT ASSIGNEE: DLO-Cent.Plant-Breed.Reprod.Res.Wageningen
LOCATION: Wageningen, The Netherlands.
PATENT INFO: EP 1006190 7 Jun 2000
APPLICATION INFO: EP 1998-204018 2 Dec 1998
PRIORITY INFO: EP 1998-204018 2 Dec 1998
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-378264 [33]

AB A DNA (1,638 or 1,613 bp) encoding a protein (452 or 434 amino acids (aa)) with **alcohol-acyl-transferase** activity which is involved in the biosynthetic pathway for aromatic and aliphatic ester production in fruit is new. Also claimed are: a DNA sequence of 1,586 bp encoding a protein (397 aa) with amino-transferase activity; regulating aromatic/ aliphatic ester production in fruit, microorganisms or plants; a 1,775 bp sequence encoding a protein with thiolase activity; a 2,141 bp sequence encoding a protein (605 aa) with pyruvate-decarboxylase (EC-4.1.1.1) activity; a 1,415, 1,227, 1,064, 1,228, 852, 664, 694 or 1,010 bp encoding a protein (333, 326, 278, 284, 188, 181, 176 or 284 aa) with alcohol-dehydrogenase (EC-1.1.1.1) activity; a vector; a plant (**strawberry** (*Fragaria* sp.), lemon (*Citrus* sp.), banana (*Musa sapientum*), apple (*Malus* sp.), pear (*Pyrus domestica*), melon (*Cucumis melo*), tomato (*Lycopersicon esculentum*), sweet pepper, peach (*Prunus persica*) or mango (*Mangifera indica*)) containing vector; an antibody; and a kit for screening fruit for volatile aromatic/aliphatic esters. The products can be used for in vitro and in vivo production of bioflavours. (116pp)

L5 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:398283 HCAPLUS

DOCUMENT NUMBER: 133:262234

TITLE: Identification of the SAAT gene involved in
strawberry flavor biogenesis by use of DNA
microarrays

AUTHOR(S): Aharoni, Asaph; Keizer, Leopold C. P.; Bouwmeester,
Harro J.; Sun, Zhongkui; Alvarez-Huerta, Mayte;
Verhoeven, Harrie A.; Blaas, Jan; Van Houwelingen,
Adele M. M. L.; De Vos, Ric C. H.; Van der Voet,
Hilko; Jansen, Ritsert C.; Guis, Monique; Mol, Jos;
Davis, Ronald W.; Schena, Mark; Van Tunen, Arjen J.;
O'Connell, Ann P.

CORPORATE SOURCE: Business Unit Cell Cybernetics, Plant Research
International, Wageningen, 6700 AA, Neth.

SOURCE: Plant Cell (2000), 12(5), 647-661

CODEN: PLCEEW; ISSN: 1040-4651

PUBLISHER: American Society of Plant Physiologists

DOCUMENT TYPE: Journal

LANGUAGE: English

AB **Fruit flavor** is a result of a complex mixt. of numerous compds. The formation of these compds. is closely correlated with the metabolic changes occurring during fruit maturation. Here, we describe the use of DNA microarrays and appropriate statistical analyses to dissect a complex developmental process. In doing so, we have identified a novel **strawberry** alc. acyltransferase (SAAT) gene that plays a crucial role in flavor biogenesis in ripening fruit. Volatile esters are quant. and qual. the most important compds. providing fruity odors. Biochem. evidence for involvement of the SAAT gene in formation of fruity esters is provided by characterizing the recombinant protein expressed in *Escherichia coli*. The SAAT enzyme showed max. activity with aliph. medium-chain alcs., whose corresponding esters are major components of **strawberry** volatiles. The enzyme was capable of utilizing short- and medium-chain, branched, and arom. acyl-CoA mols. as cosubstrates. The results suggest that the formation of volatile

esters in fruit is subject to the availability of acyl-CoA mols. and alc. substrates and is dictated by the temporal expression pattern of the SAAT gene(s) and substrate specificity of the SAAT enzyme(s).

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 13:09:09 ON 09 JUL 2004)

FILE 'MEDLINE, HCAPLUS, BIOSIS, BIOTECHDS, EMBASE' ENTERED AT 13:09:53 ON 09 JUL 2004

L1 0 S ACYL COA: ALCOHOL ACYL TRANSFERASE AND STRAWBERRY
L2 6 S ALCOHOL ACYL TRANSFERASE AND STRAWBERRY
L3 3 DUP REM L2 (3 DUPLICATES REMOVED)
L4 6 S (ALCOHOL ACYL TRANSFERASE OR ALCOHOL DEHYDRGENASE) AND (STRA
L5 3 DUP REM L4 (3 DUPLICATES REMOVED)

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	21.74	21.95
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.47	-1.47

STN INTERNATIONAL LOGOFF AT 13:14:48 ON 09 JUL 2004

=> s alcohol acyl transferase

24501 ALCOHOL

21762 ACYL

64324 TRANSFERASE

L1 12 ALCOHOL ACYL TRANSFERASE
(ALCOHOL(W) ACYL(W) TRANSFERASE)

=> d l1 1-5

L1 ANSWER 1 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN

RN 474849-06-4 REGISTRY

CN **DNA (Aspergillus oryzae strain O-1013 alcohol acyltransferase gene promoter region-containing fragment) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN 34: PN: JP2002320477 SEQID: 34 claimed DNA

CN DNA (Aspergillus oryzae strain O-1013 AACTase gene promoter region-containing fragment)

FS NUCLEIC ACID SEQUENCE

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS

DT.CA Cplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN

RN 393040-80-7 REGISTRY

CN **DNA (Cucumis melo strain Vedrantaïs clone Cm-AT2 gene AT2 alcohol acyl-transferase cDNA plus flanks) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN GenBank AF468022

FS NUCLEIC ACID SEQUENCE

MF Unspecified

CI MAN

SR GenBank

LC STN Files: CA, CAPLUS, GENBANK

DT.CA Cplus document type: Journal

RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN

RN 289611-34-3 REGISTRY

CN **DNA (Fragaria ananassa gene SAAT alcohol acyltransferase cDNA plus flanks) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN GenBank AF193789

FS NUCLEIC ACID SEQUENCE

MF Unspecified

CI MAN

SR GenBank

LC STN Files: CA, CAPLUS, GENBANK

DT.CA Cplus document type: Journal

RL.NP Roles from non-patents: BIOL (Biological study); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN
RN 274708-05-3 REGISTRY
CN **DNA (honeydew melon clone MAY5 alcohol acyltransferase cDNA plus 3'-flank) (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN 51: PN: WO0032789 SEQID: 23A claimed sequence
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN
RN 274707-95-8 REGISTRY
CN **DNA (apple clone MAY3 alcohol acyltransferase cDNA plus 3'-flank) (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN 41: PN: WO0032789 SEQID: 18A claimed sequence
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	23.40	23.61

FILE 'REGISTRY' ENTERED AT 13:17:18 ON 09 JUL 2004
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STRUCTURE FILE UPDATES: 8 JUL 2004 HIGHEST RN 706430-72-0
DICTIONARY FILE UPDATES: 8 JUL 2004 HIGHEST RN 706430-72-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L1 3 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L2 1 289611-34-3/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL GENBANK

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.50	24.11

FILE 'GENBANK' ENTERED AT 13:17:22 ON 09 JUL 2004

GENBANK (R) IS A REGISTERED TRADEMARK OF THE U.S. DEPARTMENT
OF HEALTH AND HUMAN SERVICES.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> S L2

L3 1 L2

=> DIS L3 1 IDE

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DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 1 OF 1 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): AF193789 GenBank (R)
GenBank ACC. NO. (GBN): AF193789
GenBank VERSION (VER): AF193789.1 GI:10121327
CAS REGISTRY NO. (RN): **289611-34-3**
SEQUENCE LENGTH (SQL): 1638
DEFINITION (DEF): Fragaria x ananassa alcohol acyltransferase (AAT) mRNA,
complete cds.

FEATURES (FEAT):

Feature Key	Location	Qualifier
-------------	----------	-----------

LOCUS (LOC): AF193789 GenBank (R)
 GenBank ACC. NO. (GBN): AF193789
 GenBank VERSION (VER): AF193789.1 GI:10121327
 CAS REGISTRY NO. (RN): **289611-34-3**
 SEQUENCE LENGTH (SQL): 1638
 DEFINITION (DEF): Fragaria x ananassa alcohol acyltransferase (AAT) mRNA,
 complete cds.

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..1638	/organism="Fragaria x ananassa" /db-xref="taxon:3747" /tissue-type="ripe fruit"
gene	1..1638	/gene="AAT"
CDS	16..1374	/gene="AAT" /note="acyltransferase" /codon-start=1 /product="alcohol acyltransferase" /protein-id="AAG13130.1" /db-xref="GI:10121328" /translation="MEKIEVSINSKHTIKPSTSS TPLQPYKLTLDDQLTPPAYVPIVF FYPITDHDNLPQTLADLRQALSETLTLYYPLSG RVKNNLYIDDFEEGVPLYEARVNC DMTDFLRLRKIECLNEFVPIKPFMSMEAISDERYP LLGVQVNVFDSGIAIGVSVSHKLI DGGTADCFLKSWGAVFRGCRENIHPSLSEAALL FPPRDDLPEKYVDQMEALWFAGKK VATRRFVFGVKAISSIQDEAKSESVPKPSRVHAV TGFLWKHLIAASRALTS GTTSTRL SIAAQAVNLRTRMNMETVLDNATGNLFWWAQAIL ELSHTTPEISDLKCLDLVNLNLS VKQCNGDYFETFKGKEGYGRMCEYLD FQRTMSSM EPAPDIYLFSSWTNFFNPLDFGWG RTSWIGVAGKIESASCKFIILVPTQCGSGIEAWV NLEEEKMAMLEQDPHFLALASPKT LI"

SEQUENCE (SEQ):

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121 cctccggcgt atgtcccat cgtgttcttc taccattata ctgacctaga cttcaatctt
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301 cttgaggctc gagtgaattg tgacatgact gattttctaa ggcttcggaa aatcgagtgc
361 cttaatgagt ttgttccaat aaaaccattt agtatggaag caatatctga tgagcggtac
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721 gatgaagcga agagcgagtc cgtgcccaag ccatacacgag ttcattgccg cactgggtttt
781 ctctggaaac atctaatacgc tgcttctcgg gcaactaat caggtactac ttcaacaaga
841 ctttctatag cggcccaggc agtgaactta agaacacgga tgaacatgga gacagtgttg
901 gataatgcca ctggaaactt gttctggtgg gcacaggcca tactagagct aagtcataca
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1021 aaacaatgta acggtgatta ctttgagact ttcaagggtta aagagggata tgggaagaatg
1081 tgcgagtatc tagattttca gaggactatg agttctatgg aaccagcacc ggatatttat
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1261 acacaatgcg gttctggaat tgaagcgtgg gtgaatctag aagaagagaa aatggctatg
1321 ctagaacaag atccccattt tctagcgtta gcatctccaa agaccttaat ttaaagatat

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1501 ccgaatgtgt ttccatatgc ttgtaaccaa tatagctctt tattgtaaca aatgctctat
1561 taagcttcta gctataaaagt tatttatcta ttaaaaataa aactatggaa gttttaccaa
1621 aaaaaaaaaa aaaaaaaaaa

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source      1..1638      /organism="Fragaria x ananassa"
                        /db-xref="taxon:3747"
                        /tissue-type="ripe fruit"
gene        1..1638      /gene="AAT"
CDS         16..1374     /gene="AAT"
                        /note="acyltransferase"
                        /codon-start=1
                        /product="alcohol acyltransferase"
                        /protein-id="AAG13130.1"
                        /db-xref="GI:10121328"
                        /translation="MEKIEVSINSKHTIKPSTSS
TPLQPYKLTLDDQLTPPAYVPIVF
FYPTDHDHFNLPQTLADLRQALSETLTLYYPLSG
RVKNNLYIDDFEEGVPYLEARVNC
DMTDFLRRLRKIECLNEFVPIKPFSMEAISDERYP
LLGVQVNVFDSGIAIGVSVSHKLI
DGGTADCFLKSWGAVFRGCRENIIHPSLSEAALL
FPPRDDLPEKYVDQMEALWFAGKK
VATRRFVFGVKAISIIQDEAKSESVPKPSRVHAV
TGFLWKHLIAASRALTS GTTSTRL
SIAAQAVNLRTRNMETVLDNATGNLFWWAQAIL
ELSHTTPEISDLKLCDLVNLLNGS
VKQCNGDYFETFKGKEGYGRMCEYLD FQRTMSSM
EPAPDIYLFSSWTNFFNPLDFGWG
RTSWIGVAGKIESASCKFIILVPTQCGSGIEAWV
NLEEEKMAMLEQDPHFLALASPKT LI"

```

SEQUENCE (SEQ) :

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1  acctactttg ccaaaatgga gaaaattgag gtcagtataa attccaaaca caccatcaaa
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181 cctcaaacc ctagtgactt aagacaagcc ctttcggaga ctctcacttt gtactatcca
241 ctctctggaa ggggtcaaaa caacctatac atcgatgatt ttgaagaagg tgtcccatac
301 cttgaggctc gagtgaattg tgacatgact gatttttctaa ggcttcggaa aatcgagtgc
361 cttaatgagt ttgttccaat aaaaccattt agtatggaag caatatctga tgagcgttac
421 cccttgcttg gagttcaagt caacgttttc gattctggaa tagcaatcgg tgtctccgtc
481 tctcacaagc tcatcgatgg aggaacggca gactgttttc tcaagtcctg ggggtgctgtt
541 tttcgagggt gtcgtgaaaa tatcatacat cctagtctct ctgaagcagc attgcttttc
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901 gataatgcca ctggaaactt gttctgggtg gcacaggcca tactagagct aagtcataca
961 acaccagaga tcagtgatct taagctgtgt gacttggtta acttgctcaa tggatctgtc
1021 aaacaatgta acggtgatta ctttgagact ttcaagggtta aagaggggata tggagaatg
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1441 attagttcac cagccaatca ataaaatgca agtatgatag actttgtcta cgtatgttat
1501 ccgaatgtgt ttccatatgc ttgtaaccaa tatagctctt tattgtaaca aatgctctat
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1621 aaaaaaaaaa aaaaaaaaaa

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=> d 11 1-5

YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

RN 474849-06-4 REGISTRY
CN **DNA (Aspergillus oryzae strain O-1013 alcohol acyltransferase gene promoter region-containing fragment) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN 34: PN: JP2002320477 SEQID: 34 claimed DNA
CN DNA (Aspergillus oryzae strain O-1013 AACTase gene promoter region-containing fragment)
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN
RN 393040-80-7 REGISTRY
CN **DNA (Cucumis melo strain Vedrantaïs clone Cm-AT2 gene AT2 alcohol acyl-transferase cDNA plus flanks) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN GenBank AF468022
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR GenBank
LC STN Files: CA, CAPLUS, GENBANK
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN
RN 289611-34-3 REGISTRY
CN **DNA (Fragaria ananassa gene SAAT alcohol acyltransferase cDNA plus flanks) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN GenBank AF193789
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR GenBank
LC STN Files: CA, CAPLUS, GENBANK
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN
RN 274708-05-3 REGISTRY
CN **DNA (honeydew melon clone MAY5 alcohol acyltransferase cDNA plus 3'-flank) (9CI) (CA INDEX NAME)**

OTHER NAMES:

CN 51: PN: WO0032789 SEQID: 23A claimed sequence

FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP
(Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2004 ACS on STN
RN 274707-95-8 REGISTRY
CN **DNA (apple clone MAY3 alcohol acyltransferase cDNA plus 3'-flank)**
(9CI) (CA INDEX NAME)

OTHER NAMES:

CN 41: PN: W00032789 SEQID: 18A claimed sequence
FS NUCLEIC ACID SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PROC (Process); PRP
(Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s alcohol dehydrogenase
13281 "ALCOHOL"
102156 "DEHYDROGENASE"
L4 8014 ALCOHOL DEHYDROGENASE
("ALCOHOL" (W) "DEHYDROGENASE")

=> d l4 1-2

L4 ANSWER 1 OF 8014 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): CR382138 GenBank (R)
GenBank ACC. NO. (GBN): CR382138
GenBank VERSION (VER): CR382138.1 GI:49656035
CAS REGISTRY NO. (RN): 704828-13-7
SEQUENCE LENGTH (SQL): 2336804
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Plants, fungi, algae
DATE (DATE): 3 Jul 2004
DEFINITION (DEF): Debaryomyces hansenii chromosome F of strain CBS767 of
Debaryomyces hansenii.
KEYWORDS (ST): genomic DNA
SOURCE: Debaryomyces hansenii (anamorph: Candida famata)
ORGANISM (ORGN): Debaryomyces hansenii
Eukaryota; Fungi; Ascomycota; Saccharomycotina;
Saccharomycetes; Saccharomycetales; Saccharomycetaceae;
Debaryomyces

COMMENT:

This sequence is unfinished. The sequence was obtained by Genoscope

and annotated by the Genolevures Consortium.

REFERENCE: 1 (bases 1 to 2336804)
AUTHOR (AU): Dujon,B.; Sherman,D.; Fischer,G.; Durrens,P.;
Casaregola,S.; Lafontaine,I.; De Montigny,J.; Marck,C.;
Neuveglise,C.; Talla,E.; Goffard,N.; Frangeul,L.;
Aigle,M.; Anthouard,V.; Babour,A.; Barbe,V.; Barnay,S.;
Blanchin,S.; Beckerich,J.M.; Beyne,E.; Bleykasten,C.;
Boisrame,A.; Boyer,J.; Cattolico,L.; Confanioleri,F.;
De Daruvar,A.; Despons,L.; Fabre,E.; Fairhead,C.;
Ferry-Dumazet,H.; Groppi,A.; Hantraye,F.; Hennequin,C.;
Jauniaux,N.; Joyet,P.; Kachouri,R.; Kerrest,A.;
Koszul,R.; Lemaire,M.; Lesur,I.; Ma,L.; Muller,H.;
Nicaud,J.M.; Nikolski,M.; Oztas,S.;
Ozier-Kalogeropoulos,O.; Pellenz,S.; Potier,S.;
Richard,G.F.; Straub,M.L.; Suleau,A.; Swennen,D.;
Tekaia,F.; Wesolowski-Louvel,M.; Westhof,E.; Wirth,B.;
Zeniou-Meyer,M.; Zivanovic,I.; Bolotin-Fukuhara,M.;
Thierry,A.; Bouchier,C.; Caudron,B.; Scarpelli,C.;
Gaillardin,C.; Weissenbach,J.; Souciet,J.L.
TITLE (TI): Genome evolution in yeasts
JOURNAL (SO): Nature, 430 (6995), 35-44 (2004)
REFERENCE: 2 (bases 1 to 2336804)
AUTHOR (AU): Genoscope.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (01-JUL-2004) Genoscope - Centre National de
Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail :
seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

FEATURES (FEAT):
Feature Key Location Qualifier
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source	1..2336804	/organism="Debaryomyces hansenii" /mol-type="genomic DNA" /strain="CBS767" /db-xref="taxon:4959" /chromosome="F" /note="Genoscope sequence ID : DEHA0FCHR"
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L4 ANSWER 2 OF 8014 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): CR382137 GenBank (R)
GenBank ACC. NO. (GBN): CR382137
GenBank VERSION (VER): CR382137.1 GI:49654999
CAS REGISTRY NO. (RN): 704817-76-5
SEQUENCE LENGTH (SQL): 2037969
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Plants, fungi, algae
DATE (DATE): 3 Jul 2004
DEFINITION (DEF): Debaryomyces hansenii chromosome E of strain CBS767 of
Debaryomyces hansenii.
KEYWORDS (ST): genomic DNA
SOURCE: Debaryomyces hansenii (anamorph: Candida famata)
ORGANISM (ORGN): Debaryomyces hansenii
Eukaryota; Fungi; Ascomycota; Saccharomycotina;
Saccharomycetes; Saccharomycetales; Saccharomycetaceae;
Debaryomyces

COMMENT:

This sequence is unfinished. The sequence was obtained by Genoscope
and annotated by the Genolevures Consortium.

REFERENCE: 1 (bases 1 to 2037969)
AUTHOR (AU): Dujon,B.; Sherman,D.; Fischer,G.; Durrens,P.;
Casaregola,S.; Lafontaine,I.; De Montigny,J.; Marck,C.;
Neuveglise,C.; Talla,E.; Goffard,N.; Frangeul,L.;

Aigle,M.; Anthouard,V.; Babour,A.; Barbe,V.; Barnay,S.;
 Blanchin,S.; Beckerich,J.M.; Beyne,E.; Bleykasten,C.;
 Boisrame,A.; Boyer,J.; Cattolico,L.; Confanioleri,F.;
 De Daruvar,A.; Despons,L.; Fabre,E.; Fairhead,C.;
 Ferry-Dumazet,H.; Groppi,A.; Hantraye,F.; Hennequin,C.;
 Jauniaux,N.; Joyet,P.; Kachouri,R.; Kerrest,A.;
 Koszul,R.; Lemaire,M.; Lesur,I.; Ma,L.; Muller,H.;
 Nicaud,J.M.; Nikolski,M.; Oztas,S.;
 Ozier-Kalogeropoulos,O.; Pellenz,S.; Potier,S.;
 Richard,G.F.; Straub,M.L.; Suleau,A.; Swennen,D.;
 Tekala,F.; Wesolowski-Louvel,M.; Westhof,E.; Wirth,B.;
 Zeniou-Meyer,M.; Zivanovic,I.; Bolotin-Fukuhara,M.;
 Thierry,A.; Bouchier,C.; Caudron,B.; Scarpelli,C.;
 Gaillardin,C.; Weissenbach,J.; Souciet,J.L.

TITLE (TI): Genome evolution in yeasts
 JOURNAL (SO): Nature, 430 (6995), 35-44 (2004)
 REFERENCE: 2 (bases 1 to 2037969)
 AUTHOR (AU): Genoscope.
 TITLE (TI): Direct Submission
 JOURNAL (SO): Submitted (01-JUL-2004) Genoscope - Centre National de
 Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail :
 seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..2037969	/organism="Debaryomyces hansenii" /mol-type="genomic DNA" /strain="CBS767" /db-xref="taxon:4959" /chromosome="E" /note="Genoscope sequence ID : DEHA0ECHR"

=> s alcohol dehydrogenase and strawberry
 13281 "ALCOHOL"
 102156 "DEHYDROGENASE"
 8014 ALCOHOL DEHYDROGENASE
 ("ALCOHOL" (W) "DEHYDROGENASE")
 4378 STRAWBERRY
 L5 12 ALCOHOL DEHYDROGENASE AND STRAWBERRY

=> d l5 1-5

L5 ANSWER 1 OF 12 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): CB934831 GenBank (R)
 GenBank ACC. NO. (GBN): CB934831
 GenBank VERSION (VER): CB934831.1 GI:30171083
 CAS REGISTRY NO. (RN): 510544-26-0
 SEQUENCE LENGTH (SQL): 802
 MOLECULE TYPE (CI): mRNA; linear
 DIVISION CODE (CI): Expressed sequence tag
 DATE (DATE): 28 Apr 2003
 DEFINITION (DEF): EST000031 **Strawberry** Uni-zapXR cDNA library
 Fragaria x ananassa cDNA clone FACE_B39 3'
 similar to cinnamyl **alcohol**
dehydrogenase, mRNA sequence.

KEYWORDS (ST): EST
 SOURCE: Fragaria x ananassa
 ORGANISM (ORGN): Fragaria x ananassa
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
 Tracheophyta; Spermatophyta; Magnoliophyta;

eudicotyledons; core eudicots; Rosidae; eurosids I;
Rosales; Rosaceae; Rosoideae; Fragaria

NUCLEIC ACID COUNT (NA): 248 a 127 c 178 g 231 t 18 others

COMMENT:

Contact: Aharoni A.
Department of Cell biology
DLO-Centre for Plant Breeding and Reproduction Research (CPRO-DLO)
PO Box 16, NL-6700 AA, Wageningen, The Netherlands
Tel: +31 317 477152
Fax: +31 317 418094
Email: a.aharoni@cpro.dlo.nl
Insert Length: 802 Std Error: 0.00
Seq primer: T7
POLYA=Yes.

REFERENCE: 1 (bases 1 to 802)
AUTHOR (AU): Salentijn, E.M.J.; Aharoni, A.; Schaart, J.G.; Boone, M.J.;
Krens, F.A.
TITLE (TI): Differential gene expression analysis of
strawberry cultivars that differ in
fruit-firmness
JOURNAL (SO): Physiol. Plant., (2003) In press

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..802	/organism="Fragaria x ananassa" /strain="Elsanta" /db-xref="taxon:3747" /clone="cDNA clone FACE-B39" /clone-lib="Strawberry Uni-zapXR cDNA library" /tissue-type="recaptacle including achenes" /dev-stage="red fruit"

SEQUENCE (SEQ):

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121 acctaggagc tgattingttt ttggttagcn gtgaccaaga tcaaatgcag gctgccattg
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361 atgaaggaga cacaagagat gatagatttt gcagccaagc acaacattac agcagacatc
421 gaagtcatac caatcganta cttgaacact gctatggagc gtntagtcaa agcagatgtc
481 agataccgtt ttgtcatnga cattggaaac acactgaagg ctagtnttta aattntgcaa
541 tccagactgg atcaatgaag aaacaagaac agaaacggag actgatttag tgtcatactc
601 ggtgttggtt ttccctttag cattttttgt tgtntgttac atgaataatg atcacatgaa
661 caactgcctt ctgtgatgat ttgataataa aagaanacat gaacaatgat actgccttct
721 tttgtaatgt tttttactat ataatcattt caaattattt tgctatatct ntaaaaaaaaa
781 aaaaaaaaaa aaaaaaaaaa aa
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L5 ANSWER 2 OF 12 GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): AF320110 GenBank (R)
GenBank ACC. NO. (GBN): AF320110
GenBank VERSION (VER): AF320110.1 GI:13507209
CAS REGISTRY NO. (RN): 329894-59-9
SEQUENCE LENGTH (SQL): 2590
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Plants, fungi, algae
DATE (DATE): 28 Nov 2003
DEFINITION (DEF): Fragaria x ananassa cinnamyl **alcohol**
dehydrogenase gene, complete cds.
SOURCE: Fragaria x ananassa
ORGANISM (ORGN): Fragaria x ananassa

Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Tracheophyta; Spermatophyta; Magnoliophyta;
eudicotyledons; core eudicots; rosids; eurosids I;
Rosales; Rosaceae; Rosoideae; Fragaria
1 (bases 1 to 2590)

REFERENCE:
AUTHOR (AU): Blanco-Portales, R.; Medina-Escobar, N.; Lopez-Raez, J.A.;
Gonzalez-Reyes, J.A.; Villalba, J.M.; Moyano, E.;
Caballero, J.L.; Munoz-Blanco, J.
TITLE (TI): Cloning, expression and immunolocalization pattern of a
cinnamyl **alcohol dehydrogenase** gene
from **strawberry** (Fragaria x ananassa cv.
Chandler)
JOURNAL (SO): J. Exp. Bot., 53 (375), 1723-1734 (2002)
OTHER SOURCE (OS): CA 137:307362
REFERENCE:
AUTHOR (AU): Blanco-Portales, R.; Caballero, J.L.; Munoz-Blanco, J.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (08-NOV-2000) Bioquimica y Biologia
Molecular, Universidad de Cordoba, Edificio C-6. Campus
Universitario de Rabanales, Cordoba 14071, Spain

FEATURES (FEAT):

Feature Key	Location	Qualifier
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CDS	join(736..827, 969..1082,1171..1684, 1781..1934,2025..2230)	/codon-start=1 /product="cinnamyl alcohol dehydrogenase" /protein-id="AAK28509.1" /db-xref="GI:13507210" /translation="MSIEQEHPPNKASGWAARDSS GVLSPFNFSRRETGEKDVDFKVLVY CGICHSDHHMVKNWGFSTYPLVPGHEIVGEVTE VGSKVQKFKVGDVRVGVGCIVGSCR SCENCTDHLNYPCKQILTYGANYDGTTTYGGC SDIMVAHEHFVVRIPDNLPLDGAA PLLCAGITTYSPRLRYFGLDKPGMHVGVVGLGGLG HVAVKFAMKGVKVTIVISTSPKKE EEALKHLGADSFLVSRDQDHMQAAIGTMDGIIDT VSAQHPLPLPLIGLLKSHGKLVVMVG APEKPLELPVFPLLMGRKMWAGSGIGMMETQEM IDFAAKHNITADIEVIPIDYLNLA MERLVKADVRYRFVIDIGNTLKASS"

SEQUENCE (SEQ):

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481 taattgcatc acccaataacg tcaccagtca ccacnacttg gacatcgaat tttcctcacc
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L5 ANSWER 3 OF 12 GENBANK.RTM. COPYRIGHT 2004 on STN

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LOCUS (LOC): AX025499 GenBank (R)
GenBank ACC. NO. (GBN): AX025499
GenBank VERSION (VER): AX025499.1 GI:10187172
CAS REGISTRY NO. (RN): 390285-03-7
SEQUENCE LENGTH (SQL): 1010
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 24 Nov 2000
DEFINITION (DEF): Sequence 25 from Patent WO0032789.
SOURCE: Fragaria x ananassa.
ORGANISM (ORGN): Fragaria x ananassa
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Tracheophyta; Spermatophyta; Magnoliophyta;
eudicotyledons; core eudicots; Rosidae; eurosids I;
Rosales; Rosaceae; Rosoideae; Fragaria
NUCLEIC ACID COUNT (NA): 333 a 171 c 237 g 269 t
REFERENCE: 1
AUTHOR (AU): Aharoni,A.; Verhoeven,H.A.; Luecker,J.; O'Connell,A.P.;
Van Tunen,A.J.
TITLE (TI): Fruit flavour related genes and use thereof
JOURNAL (SO): Patent: WO 0032789-A 25 08-JUN-2000; AHARONI ASAPH (IL)
; VERHOEVEN HARRIE ADRIANUS (NL) ; LUECKER JOOST (NL) ;
CPRO DLO (NL) ; CONNELL ANN PATRICIA O (NL) ; TUNEN
ARJEN JOHANNES VAN (NL)

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FEATURES (FEAT):

Feature Key	Location	Qualifier
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CDS

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L5 ANSWER 4 OF 12

GENBANK.RTM. COPYRIGHT 2004 on STN

LOCUS (LOC): AX025497 GenBank (R)
GenBank ACC. NO. (GBN): AX025497
GenBank VERSION (VER): AX025497.1 GI:10187170
CAS REGISTRY NO. (RN): 390285-02-6
SEQUENCE LENGTH (SQL): 694
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Patent
DATE (DATE): 24 Nov 2000
DEFINITION (DEF): Sequence 23 from Patent WO0032789.
SOURCE: Fragaria x ananassa.
ORGANISM (ORGN): Fragaria x ananassa
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Tracheophyta; Spermatophyta; Magnoliophyta;
eudicotyledons; core eudicots; Rosidae; eurosids I;
Rosales; Rosaceae; Rosoideae; Fragaria
NUCLEIC ACID COUNT (NA): 224 a 104 c 166 g 200 t
REFERENCE: 1
AUTHOR (AU): Aharoni, A.; Verhoeven, H.A.; Luecker, J.; O'Connell, A.P.;
Van Tunen, A.J.
TITLE (TI): Fruit flavour related genes and use thereof
JOURNAL (SO): Patent: WO 0032789-A 23 08-JUN-2000; AHARONI ASAPH (IL)
; VERHOEVEN HARRIE ADRIANUS (NL) ; LUECKER JOOST (NL) ;
CPRO DLO (NL) ; CONNELL ANN PATRICIA O (NL) ; TUNEN
ARJEN JOHANNES VAN (NL)

FEATURES (FEAT):

Feature Key	Location	Qualifier
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source          1..694          /organism="Fragaria x ananassa"
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SEQUENCE (SEQ):

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L5 ANSWER 5 OF 12 GENBANK.RTM. COPYRIGHT 2004 on STN

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LOCUS (LOC):          AX025495      GenBank (R)
GenBank ACC. NO. (GBN): AX025495
GenBank VERSION (VER): AX025495.1  GI:10187168
CAS REGISTRY NO. (RN): 290202-28-7
SEQUENCE LENGTH (SQL): 663
MOLECULE TYPE (CI):   DNA; linear
DIVISION CODE (CI):   Patent
DATE (DATE):          24 Nov 2000
DEFINITION (DEF):     Sequence 21 from Patent WO0032789.
SOURCE:               Fragaria x ananassa.
  ORGANISM (ORGN):     Fragaria x ananassa
                        Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
                        Tracheophyta; Spermatophyta; Magnoliophyta;
                        eudicotyledons; core eudicots; Rosidae; eurosids I;
                        Rosales; Rosaceae; Rosoideae; Fragaria
NUCLEIC ACID COUNT (NA): 203 a   107 c   180 g   173 t
REFERENCE:             1
  AUTHOR (AU):         Aharoni,A.; Verhoeven,H.A.; Luecker,J.; O'Connell,A.P.;
                        Van Tunen,A.J.
  TITLE (TI):          Fruit flavour related genes and use thereof
  JOURNAL (SO):         Patent: WO 0032789-A 21 08-JUN-2000; AHARONI ASAPH (IL)
                        ; VERHOEVEN HARRIE ADRIANUS (NL) ; LUECKER JOOST (NL) ;
                        CPRO DLO (NL) ; CONNELL ANN PATRICIA O (NL) ; TUNEN
                        ARJEN JOHANNES VAN (NL)

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FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..663	/organism="Fragaria x ananassa"
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		alcohol dehydrogenase"

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SEQUENCE (SEQ):

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661 aaa

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=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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98.40

STN INTERNATIONAL LOGOFF AT 13:22:17 ON 09 JUL 2004